I claim:

1. A linear recording medium, comprising a series of parallel servo transitions having modulated distances between adjacent parallel servo transitions as a function of location of the transitions on the medium.

2. The medium of claim 1, in which the adjacent parallel servo transitions are immediately adjacent.

3. The medium of claim 1, in which the linear recording medium is a magnetic recording medium.

4. The medium of claim 1, in which the linear recording medium is a tape recording medium.

5. A system for intentionally generating position error signal in a data recording drive, comprising in combination:

a) a linear recording medium, upon at least a portion of which are parallel servo transitions, having modulated distances between adjacent parallel servo transitions as a function of location on the medium; and

b) a servo read head connected to the drive;

in which the drive is designed to expect essentially no modulated distance between adjacent parallel servo transitions on the medium.

6. The system of claim 5, in which the adjacent parallel servo transitions are immediately adjacent.

7. The system of claim 5, in which the speed of the linear recording medium relative to the servo read head is constant.

8. A method of intentionally generating position error signal in a data recording drive, comprising writing parallel servo transitions on at least a portion of a linear recording medium while modulating distance, as a function of location on the medium, between adjacent parallel servo transitions.

9. The method of claim 8, in which the adjacent parallel servo transitions are immediately adjacent.

10. The method of claim 8, in which writing comprises adjusting clock timing in a servo write head timing circuit.

11. The method of claim 8, in which writing comprises adjusting position of the linear recording medium relative to a fixed servo write head.

12. The method of claim 8, in which writing comprises adjusting position of a servo write head relative to the linear recording medium.

13. The method of claim 8, in which the method comprises generating position error signal in a step response pattern.

14. The method of claim 8, in which the method comprises generating position error signal in a pulse response pattern.

15. The method of claim 8, in which the method comprises generating position error signal in a frequency response pattern.

16. A method of measuring step response of a servopositioning system in a recording drive designed to expect essentially no modulation of distance between adjacent parallel servo transitions on a linear recording medium, comprising:

a) at first and second longitudinal locations on the medium, writing respective first and second parallel servo transitions that have

respective first and second distances between adjacent parallel servo transitions that differs from each other; and

b) reading position error signal at each longitudinal location.

17. The method of claim 13, in which the adjacent parallel servo transitions are immediately adjacent.

18. The system of claim 13, in which the position error signal is read while the linear recording medium moves relative to the servo read head at constant speed.

19. The method of claim 13, in which writing comprises adjusting clock timing in a servo write head timing circuit.

20. The method of claim 13, in which writing comprises adjusting position of the linear recording medium relative to a fixed servo write head.

21. The method of claim 13, in which writing comprises adjusting position of a servo write head relative to the linear recording medium.

22. A method of simulating rapid transient motion of a linear recording medium, comprising:

a) at a first transverse location on the medium, writing parallel servo transitions on at least a portion of the medium while modulating distance, as a function of location on the medium, between adjacent parallel servo transitions; and

b) repeating the writing step at a second transverse location.

23. The method of claim 22, in which the adjacent parallel servo transitions are immediately adjacent.

24. The method of claim 22, further comprising moving the linear recording medium relative to a servo read head of a recording drive at constant speed.

25. The method of claim 22, in which writing comprises adjusting clock timing in a servo write head timing circuit.

26. The method of claim 22, in which writing comprises adjusting position of the linear recording medium relative to a fixed servo write head.

27. The method of claim 22, in which writing comprises adjusting position of a servo write head relative to the linear recording medium.

28. The method of claim 22, further comprising reading position error signal at each transverse location with a recording drive, and disabling a data write function in the drive if the position error signal exceeds a stop write limit.

29. A method of evaluating performance of a linear recording drive designed to expect essentially no modulation of distance between adjacent parallel servo transitions on a linear recording medium compatible with the drive, comprising

a) providing a medium having a series of parallel servo transitions having distances between adjacent parallel servo transitions which have been modulated as a function of location of the transitions on the medium;

b) using the drive to read position error signal at each transverse location on the medium; and

c) comparing the position error signal to an expected value.

30. The method of claim 29, in which the adjacent parallel servo transitions are immediately adjacent.

31. The method of claim 29, in which the position error signal is read while the linear recording medium is moving at constant speed.

32. The method of claim 29, in which writing comprises adjusting clock timing in a servo write head timing circuit.

33. The method of claim 29, in which writing comprises adjusting position of the linear recording medium relative to a fixed servo write head.

34. The method of claim 29, in which writing comprises adjusting position of a servo write head relative to the linear recording medium.